

TROPICAL RAINFALL MEASURING MISSION

July 24, 2000 - July 30, 2000

DOY 206 - 212

Day of Mission 962 - 968

TRMM MISSION OPERATIONS

- TRMM is flying in the +X Forward direction as of July 19th (00-201), at 18:30:41z.
- Yaw maneuver #45 is scheduled for August 18th (00-231).
- Delta-V maneuver #214 is scheduled for July 31st (00-213), using the LBS thrusters.
- The Beta angle range for 00-213 through 00-219 is +43.5° to +51.9°.
- The next Monthly Status Review is scheduled for August 2nd (00-215).
- The next CCB meeting is scheduled for August 28th (00-241).
- There are 155 days remaining until Extended Mission science operations begin (1/1/2001).

TRMM SUBSYSTEM OPERATIONS

Attitude Control System (ACS)

00-206 (Monday, July 24th)

Delta-V maneuver #212 was successfully conducted at 15:27:00z and 16:11:45z for durations of 42.375 and 26.000 seconds respectively, using the LBS thrusters. The off-modulation of the - Yaw thruster (#1) for burn 1 was 8.6% (91.4% on time). The off-modulation of the +Pitch thruster (#2) for burns 1 and 2 was 24.9% and 26.5% (76.1% and 73.5% on time). The remaining fuel is 551.138 kg, and the final apogee and perigee height is 354.90 km x 347.54 km.

00-208 (Wednesday, July 26th)

The first TRMM End of Life and Controlled Reentry Planning meeting was held.

00-209 (Thursday, July 27th)

Delta-V maneuver #213 was successfully conducted at 14:56:35z and 15:42:21z for durations of 31.500 and 22.750 seconds respectively, using the LBS thrusters. The off-modulation of the +Pitch thruster (#2) for burns 1 and 2 was 26.4% and 17.8% (78.1% and 74.7% on time). The remaining fuel is 549.827 kg, and the final apogee and perigee height is 354.80 km x 347.55 km.

Flight Data System (FDS) / Command & Data Handling (C&DH)

The UTCF remains at 31535996.841932 seconds. The frequency standard drift rate is -0.65 μ s/hr. The current drift value is -176.0 μ s.

Reaction Control Subsystem (RCS)

The RCS subsystem performed nominally during this period. See the ACS section for specific Delta-V information.

Power Subsystem

The Power subsystem operated nominally during this period.

Electrical Subsystem

The Electrical subsystem operated nominally during this period.

Thermal Subsystem

The Thermal subsystem operated nominally during this period.

Deployables Subsystem

The Deployables subsystem performed nominally during this period.

RF/Communications Subsystem

The RF/Communications subsystem performed nominally during this period.

SPACECRAFT INSTRUMENTS

CERES

The CERES instrument remains in Diagnostic Mode following the DAP microprocessor telemetry dropout which was reported last month (AR #82). Assessment continues as to the instrument state of health and there was no additional commanding performed during this time period.

LIS

LIS performed nominally during this time period.

PR

PR performed nominally during this time period.

The list of Internal Calibration times over Australia in which PR was not radiating is below:

2000/206:12:53:48 - 12:55:58z
2000/207:05:11:26 - 05:16:28z
2000/207:13:16:38 - 13:18:30z
2000/208:12:05:00 - 12:07:11z
2000/209:04:22:56 - 04:27:35z
2000/209:10:53:23 - 10:55:37z
2000/210:11:16:12 - 11:18:21z
2000/211:10:04:48 - 10:07:01z

2000/212:02:25:14 - 02:27:11z
2000/212:10:27:26 - 10:29:34z

TMI

TMI performed nominally during this time period.

VIRS

VIRS performed nominally during this time period.

GROUND SYSTEM

00-210 (Friday, July 28th)

The ground system on String 2 was updated with proper privileges to resolve outstanding security issues. A MOC PDU scan and verification was also performed.

00-212 (Sunday, July 30th)

ER#190: The FOT notified CSC of the initial negative acquisition and was informed that the likely cause was a TDS vector problem at WSGT, as TERRA was also affected. With CSC's approval, a forward reacquisition GCMR was sent with no acquisition. WSGT requested and received an updated vector from the NCC and acquisition was established at 16:08:40z. All playback data was recovered over the next three contacts, with one contact being extended by ten minutes to accommodate the longer playback times.

Event Reports

#190: TDS Vector Problem at WSGT (see Ground System).

Generic Late Acquisition Reports (for TTRs 19639)

No new generic late acquisition reports during this period.

New Anomaly Reports

No new Anomaly Reports were generated during this period.

Recurring Open Anomaly Reports

No Open Anomalies were observed during this period.

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